

REMARKS

Claims 1 through 14 are pending in this application. Claim 3 is amended in several particulars for purposes of clarity in accordance with current Office policy, to assist the examiner and to expedite compact prosecution of this application. Claim 14 has been newly added.

I. REJECTION OF CLAIMS (35 U.S.C. § 103)

According to MPEP 706.02(j), the following establishes a *prima facie* case of obviousness under 35 U.S.C. §103:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

A. Claims 1, 2, 4, 6, 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable, over Somani et al (US 6,718,173) in view of Yamane (US 5,842,131). The Applicant respectfully traverses.

The Examiner admits that Somani does not disclose confirming a location of the mobile station by dummy paging but that it does confirm the location of the mobile station.

On the other hand, the Examiner contends that Yamane discloses confirming the location and state of the mobile station by dummy paging as seen in col. 3, lines 36-42.

However, col. 3, lines 36-42 discloses two modes of paging where paging to a mobile station is transmitted from the other terminal such as a personal computer or paging is periodically transmitted from the service center to confirm the current position. Therefore, this does not disclose a dummy paging where it accommodates a confirmation of a location when the mobile station is kept in the idle state.

Concerning claim 2, a repeater dispersedly installed in the sector zones is not disclosed specifically by the references. The Examiner should not interpret the base station controller and mobile switching center as being a repeater to access the location. The mobile switching center does not teach or suggest a repeater. A Mobile Switching Center (MSC), is the sophisticated central computer ("switch") that controls the operation of a wireless system and acts as an interface between the wireless network and the PSTN while a repeater is generally a device that receives a radio signal, amplifies it, then retransmits it in a new direction, used to extend the range of a base station's signals, thus expanding coverage without the expense of added base stations, and repeaters are often used

within buildings, tunnels, urban canyons, or other difficult terrain.

B. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Somani et al (US 6,718,173) in view of Yamane (US 5,842,131) and further in view of Stephens (US 6,256,503). The Applicant respectfully traverses.

Somani fails to teach or suggest a plurality of repeaters installed in sector zones of a private base transceiver station. Col. 1, lines 11-25 and lines 64-67 only states that a location of the mobile station can be updated after a certain period of time and the visitor location register stores the location of the mobile station.

Somani fails to teach or suggest confirming and updating the location information when the mobile station keeps up an idle state during a certain period. The Examiner points to col. 4, lines 59-64, but it only states that when the location update messages are not received, there is a transmission of the location update retry messages until the messages are received which is not the same as updating and confirming when there is an idle state for a time. The actual updating and confirming is not done but the update messages are sent until they are received by the mobile station.

The Examiner admits that Somani and Yamane fail to teach or suggest a server inquiring about the location information of the mobile station that is stored in the visitor location register. On the other hand, the Examiner states that Stephens teaches such a limitation.

However, looking at col. 13, lines 40-48 of Stephens, Stephens teaches a home location register that provides subscription information for querying service machine and requesting the visitor

location register, in association with the mobile switching center to provide the location of the mobile station. However, specifically no server computer makes such an inquiry in col. 13.

The amendment to claim 3 is supported by the entirety of the drawings and specification.

C. Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Somani et al (US 6,718,173) in view of Yamane (US 5,842,131) and further in view of Fitch et al (US 6,424,840). The Applicant respectfully raveses.

The Examiner admits that both Somani and Yamane fail to teach or suggest the information including the BTS number, sector number and repeater number.

D. Claims 10, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Somani et al (US 6,718,173) in view of Fitch et al (US 6,424,840) and further in view of Stephens (US 6,256,503) and Holland (US 6,321,091). The Applicant respectfully traverses.

The Examiner states that Somani teaches the periodic transmitting of messages requesting inquiry about the mobile state to a server, but in col. 26, lines 22-26, Somani discloses of a second query process, which does not necessarily mean periodic. Moreover, the process retrieves the location information from database servers. In the present invention, as claimed, the server receives

the location information from the visitor location register directly to the server while in Somani in the second embodiment of figure 15 has the global database servers 502 being similar to the global database server 102 of figure 8 that has the home location register. The location update processors 504 sends the location information to the global database server rather than the information coming from the visitor location table directly.

Moreover, the references fail to teach or suggest location information including the repeater number as no repeater is specifically disclosed by the references. Fitch in col. 7, lines 8-10 only states that the information may include cell or sector identifier which does not specifically disclose the repeater number.

The Examiner states that Holland teaches transmitting the location information received from the private base station controller to the client and receiving the location information from said server and providing the user with the location and state of the mobile station according to the received location information while admitting that Somani, Fitch and Stephens fails to teach or suggest such a limitation. Col. 4, lines 31-49 disclose the subscriber computer including software such as a web browser that can be initiated through the web browser the location information. However, the locator device 12 uses a global positioning system to send the information to the cellular system rather than the cellular system providing the location information.


As seen in the added claim 14 which is dependent on claim 10, the references fail to teach or suggest transmitting location information stored in said visitor location register directly to the server, remote from the visitor location register, in response to the server's request.

The newly added claim 14 is supported by the drawings and specification in its entirety.

In view of the foregoing amendments and remarks, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. If there are any questions, the examiner is asked to contact the applicant's attorney.

No fee is incurred by this Amendment. Should there be a deficiency in payment, or should other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

Respectfully submitted,


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